

5                   **PROTECTIVE SHROUD FOR FCC FEED NOZZLES**  
                    **AND METHOD FOR DESIGNING SUCH SHROUD**

**ABSTRACT OF THE DISCLOSURE**

10           A protective shield for protecting a feed nozzle  
encloses, not only the circumference of the feed nozzle,  
but also encloses and protects the end of the feed  
nozzle. The protective shield includes an open portion  
in its end which corresponds to, and surrounds the slit  
15 in the end of the feed nozzle. Optimal shape of the open  
portion is determined by spray visualization tests.